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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,600	12/16/2005	Wanderson Bueno de Almeida	C 2620 PCT/US	2259
23657	7590	03/23/2009		
FOX ROTHSCHILD LLP 2000 MARKET STREET PHILADELPHIA, PA 19103			EXAMINER MULCAHY, PETER D	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 03/23/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/536,600	Applicant(s) BUENO DE ALMEIDA ET AL.	
	Examiner Peter D. Mulcahy	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/26/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The claim language "can be" is indefinite. It is unclear as to how this further limits the claims. If the claimed element "can be" a specified embodiment, then it "can be" another embodiment. The alternative embodiment is neither claimed or specified. As such, the language is indefinite.

4. The claims identify the esters as being saturated or unsaturated as well as branched or linear. This is indefinite because it is unclear as to how this further limits the claims. All elements falling within the scope of the claims is either branched or linear and either saturated or unsaturated. There are no elements that can fall within the scope of the claims that are neither branched or linear and saturated or unsaturated. As such, the language is not further limiting and/or indefinite. Clarification is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benecke et al. US 6,797,753 in view of Graham et al. US 3,803,072 and in view of Kuester et al. US 3,377,304.

7. Benecke et al. discloses PVC plasticizers derived from vegetable oils, See the abstract. These vegetable oils are fatty acid esters that can be formed from lower alcohols, see column 3 lines 34+ and column 5 lines 45+. The epoxidation of the fatty acid esters is discussed at column 6 lines 40+. This disclosure is seen to suggest the claimed epoxidized isobutanol ester (i). The incorporation of butyl stearate is expressly stated at column 4 line 59. This is a homologue of methyl stearate that is claimed. These plasticizer are intended to be used in place of the conventionally used phthalate plasticizers, see column 7 lines 25+. Benecke et al. does not expressly disclose the claimed combination of the epoxy isobutanol fatty acid acid ester and methyl fatty acid ester in combination.

8. Graham et al. also shows PVC plasticized with fatty acid esters and epoxidized fatty acid esters, see column 4 lines 15-17 and lines 48-60. Herein the claimed methyl esters are discussed as conventional plasticizers for PVC. Graham et al. does not expressly disclose the claimed combination of the epoxy isobutanol fatty acid acid ester and methyl fatty acid ester in combination.

9. Kuester et al. shows the epoxy isobutyl fatty acid ester as a plasticizer for PVC, see column 1 lines 65-72. Kuester et al. does not expressly disclose the claimed combination of the epoxy isobutanol fatty acid acid ester and methyl fatty acid ester in combination.

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10. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the methyl ester of Graham et al. in combination with the epoxy isobutyl fatty acid ester of Kuester et al. as a plasticizer combination in the invention of Benecke et al. One having ordinary skill in the art would have been motivated to combine the teachings of the art in this manner given the art recognized function of the plasticizer compounds. PVC resins are the most widely plasticized resins in the world. The use of combinations of plasticizers is well known and conventional. Each of the claimed plasticizers is known as a plasticizer for PVC. It is prima facie obvious to combine known ingredients and have them function in an expected manner. Obviousness does not require absolute predictability but rather a reasonable expectation of success. Given the general understanding and the state of the art, one would have a reasonable expectation of success when using the plasticizers in combination with one another as claimed.

11. The results in the specification have been fully considered but fail to overcome the art rejection of record. The single inventive run does not support the breadth of the claims and the single comparative run does not represent the closest prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/
Primary Examiner, Art Unit 1796